

IN THE CLAIMS

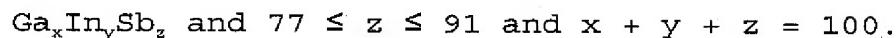
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A rewritable optical data storage medium for high-speed recording by means of a focused radiation beam, said medium comprising a substrate carrying a stack of layers, wherein said stack comprises, a first auxiliary layer, a second auxiliary layer, and a recording layer of a phase-change material mainly comprising an alloy of Sb and at least one of Ga and In, said recording layer being interposed between the first auxiliary layer and the second auxiliary layer, wherein the alloy does not include Te and is of a composition in atomic percentages defined by the formula:

$Ga_xIn_ySb_z$ and $70 \leq z \leq 95$ and $x + y + z = 100$; and x , y , and z are not equal to zero, so that the medium may be directly overwritten a linear velocity of more than 10 m/s.

2. (Previously Presented) The optical data storage medium as claimed in Claim 1, wherein the alloy is of a composition in atomic percentages defined by the formula:



Claim 3-4 (Canceled)

5. (Previously Presented) The optical data storage medium as claimed in Claim 1, wherein the recording layer additionally contains up to 10 at.% of Ge.

6. (Previously Presented) The optical data storage medium as claimed in Claim 1, wherein a reflective layer is present adjacent the second auxiliary layer at a side remote from the first auxiliary layer.

7. (Previously Presented) The optical data storage medium as claimed in Claim 6, wherein an additional layer is present sandwiched between the reflective layer and the second auxiliary

layer screening the reflective layer from a chemical influence of the second auxiliary layer.

8. (Previously Presented) The optical data storage medium as claimed in Claim 7, wherein the additional layer comprises Si₃N₄.

9. (Previously Presented) The optical data storage medium as claimed in Claim 1, wherein the recording layer has a thickness smaller than 20 nm.

10. (Previously Presented) Use of an optical data storage medium according to claim 1 for high data rate recording with a recording speed of at least 10 m/s and an archival life stability of at least 10 years at 30°C.

11. (Previously Presented) The optical data storage medium of claim 1, wherein the medium has an archival life stability of at least 10 years at a temperature of 30°C.

12. (New) The optical data storage medium of claim 1, wherein

the second auxiliary layer has a thickness of $\lambda/(2n)$ nm, where λ is a wavelength of the focused radiation beam and n is a refractive index of the second auxiliary layer.

13. (New) The optical data storage medium of claim 1, wherein the second auxiliary layer has a thickness between 10 and 30 nm.

14. (New) The optical data storage medium of claim 1, wherein the first auxiliary layer has a thickness of substantially 90 nm for a wavelength of the focused radiation beam of substantially 670 nm.

15. (New) The optical data storage medium of claim 1, wherein the first auxiliary layer and the second auxiliary layer include a carbide.

16. (New) The optical data storage medium of claim 1, wherein the first auxiliary layer and the second auxiliary layer include an oxide.

17. (New) The optical data storage medium of claim 1, further comprising a cover layer formed on the first auxiliary layer and having a thickness of substantially 120 μm .

18. (New) The optical data storage medium of claim 6, wherein the reflective layer has a thickness of substantially 120 nm.

19. (New) The optical data storage medium of claim 7, wherein the additional layer has a thickness between 2 and 8 nm.